

c B₂ (and 1)
3. (Twice Amended) The medium according to claim 1, wherein the nucleosides are selected from the group consisting of adenosine, guanosine, cytidine, and uridine, and wherein the at least four ^{free} amino acids added comprise cysteine.

c B₃
c
4. (Twice Amended) The medium according to claim 3, wherein the nucleosides consist essentially of ^{a combination of} adenosine and ^{or} guanosine, ^{or a mixture of} cytidine and uridine; ^{or mixtures of} the combination thereof.

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c
9. (Twice Amended) The medium according to claim 1, further comprising added magnesium and aspartic acid, ~~and wherein the nucleosides comprise free bases:~~

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10. (Twice Amended) The medium according to claim 9, wherein the at least four ^{free} amino acids added comprise cysteine, alanine, serine and isoleucine, each in an amount ranging from about 10 to about 200 milligrams per liter of the medium; wherein the nucleosides added are each in the range of from about 10 to about 500 milligrams per liter of the medium; and wherein the iron added is in the range of about 10 to about 200 milligrams per liter of the medium.

c B₅
13. (Amended) A medium for growing *Lactobacilli* comprising: a milk-derived base; and an additive system that comprises at least four ^{free} amino acids, at least two nucleosides selected from the group consisting of adenosine, guanosine, cytidine, and uridine each added in the range of from about 10 to about 500 milligrams per liter of the medium, and iron in the range of about 10 to 200 milligrams of iron per liter of the medium to promote growth of *lactobacilli* in the medium.

REMARKS

The courtesies extended by Examiners Deborah K. Ware and David Naff to the applicants' representatives, Scott Blackman and Rodney Fuller, during the interview on August 29, 2002 are noted with appreciation. The comments presented herein are substantially the same as those that were presented and discussed at the interview.

The claims have been amended as suggested by the Examiner and as noted in the Interview Summary to include the term "free" before amino acids and changing the term "ribonucleotide precursors" to "nucleosides." The changes are fully supported by the present

specification, for example at page 4, third paragraph and page 8, second paragraph. No new matter has been added.

Claims 1-11 and 18-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Gil *et al.*, U.S. Patent No. 4,544,559, in view of Hata, U.S. Patent No. 4,879,238 for the reasons set forth on pages 2-3 of the Office Action. Applicants traverse.

As discussed in the recent interview on August 29, 2002, neither Gil *et al.* nor Hata teaches any medium for growing any bacteria, let alone a medium for growing *Lactobacilli*. Gil *et al.* addresses using humanized milk for infants; Hata addresses using additives for deodorization of foul-smelling substances. Neither uses the additives to feed or grow any bacteria. Furthermore, even as additives for their very different purposes, neither reference teaches the use of at least two nucleosides (ribo- or deoxy-) or at least four amino acids. Therefore, the combination of the two references would not make Applicants' invention --a growth medium for *Lactobacillus*-- obvious.

In addition, when applying 35 USC §103, the following tenets of patent law must be adhered to:

- (A) the claimed invention must be considered as a whole;
- (B) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (C) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
- (D) reasonable expectation of success is the standard with which obviousness is determined. (MPEP 2141)

In view of these patent law tenets, Applicants also respectfully point out that that there is no suggestion or motivation to combine the references, Gil *et al.* and Hata. Hata is directed to the use of autotrophic bacteria for deodorization of excrement, while Gil *et al.* is directed to a nucleotide enriched humanized milk for infant nourishment. One skilled in the art of making medium for bacteria and specifically for *Lactobacillus* bacteria, would not be motivated to combine the teachings of Hata (deodorization of excrement) with Gil *et al.* (humanized milk for infants) to develop a medium for growing *Lactobacillus* bacteria.

The mere fact that the references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. Applicants are unaware of any motivation or suggestion to combine the references in the manner suggested by the Examiner. Even if the references were combined, one would not have Applicants' invention as neither reference alone or in combination

teaches a medium for growing bacteria with at least two nucleosides and at least four amino acids.

Even if the references were combined in the manner suggested by the Examiner, --though one of ordinary skill in the relevant art would not do so-- there is no reasonable expectation of success that by adding at least four amino acids in any form, let alone at least four free amino acids, along with at least two nucleosides, and iron to a milk-derived base a medium for effectively growing *Lactobillus* bacteria could be produced.

As neither Gil *et al.* nor Hata teach a medium for growing bacteria or a composition with at least two nucleosides and at least four amino acids (free or in peptide form), and the fact that there is no suggestion of the desirability of combining the two references, Applicants respectfully request that the obviousness rejection be withdrawn.

In view of the remarks above, it is believed that the entire application is in condition for allowance. Should any issues remain, a personal or telephonic interview is respectfully requested to discuss the same in order to expedite the allowance of all the claims in this application.

No fees are believed to be due for the claim changes made in this response. Should any fees be due, however, please charge them to Winston & Strawn Deposit Account No. 501-814.

Respectfully submitted,

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Date

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APPENDIX B
MARKED COPY OF AMENDED CLAIMS

1. (Amended) A medium for growing *Lactobacilli* comprising:
a milk-derived base; and an additive system that comprises at least four free amino acids, at least two [ribonucleotide precursors] nucleosides, and iron, in amounts sufficient in combination to promote growth of *lactobacilli* in the medium.
2. (Twice Amended) The medium according to claim 1, wherein the [ribonucleotide precursors] nucleosides are ribonucleosides, each added in the range of from about 10 to about 500 milligrams per liter of the medium.
3. (Twice Amended) The medium according to claim 1, wherein the [ribonucleotide precursors] nucleosides are selected from the group consisting of adenosine, guanosine, cytidine, and uridine, and wherein the at least four amino acids added comprise cysteine.
4. (Twice Amended) The medium according to claim 3, wherein the [ribonucleotide precursors] nucleosides consist essentially of adenosine and guanosine; cytidine and uridine; or mixtures thereof.
9. (Twice Amended) The medium according to claim 1, further comprising added magnesium and aspartic acid, and wherein the [ribonucleotide precursors] nucleosides comprise free bases.
10. (Twice Amended) The medium according to claim 9, wherein the at least four amino acids added comprise cysteine, alanine, serine and isoleucine, each in an amount ranging from about 10 to about 200 milligrams per liter of the medium; wherein the [ribonucleotide precursors] nucleosides added are each in the range of from about 10 to about 500 milligrams per liter of the medium; and wherein the iron added is in the range of about 10 to about 200 milligrams per liter of the medium.

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19. (Amended) A medium for growing *Lactobacilli* comprising:
a milk-derived base; and an additive system that comprises at least four amino acids, at least two [ribonucleotide precursors] nucleosides selected from the group consisting of adenosine, guanosine, cytidine, and uridine [and comprising ribonucleosides], each added in the range of from about 10 to about 500 milligrams per liter of the medium, and iron in the range of about 10 to 200 milligrams of iron per liter of the medium to promote growth of *lactobacilli* in the medium.